QT-Brightek PLCC Series

Dome Type PLCC2 LED

Part No.: QBLP670D-R-2693

Table of Contents:

Introduction

Feature:

- Water Clear lens
- Ultra bright dome type PLCC2 LED
- AlInGaP technology for R
- 30 degree viewing angle
- MSL: Level 3

Description:

This dome type PLCC2 LED has a height profile of 3.6mm. Combination of high brightness output and robust package, this LED is ideal for architecture lighting, status indication, and color mixing applications.

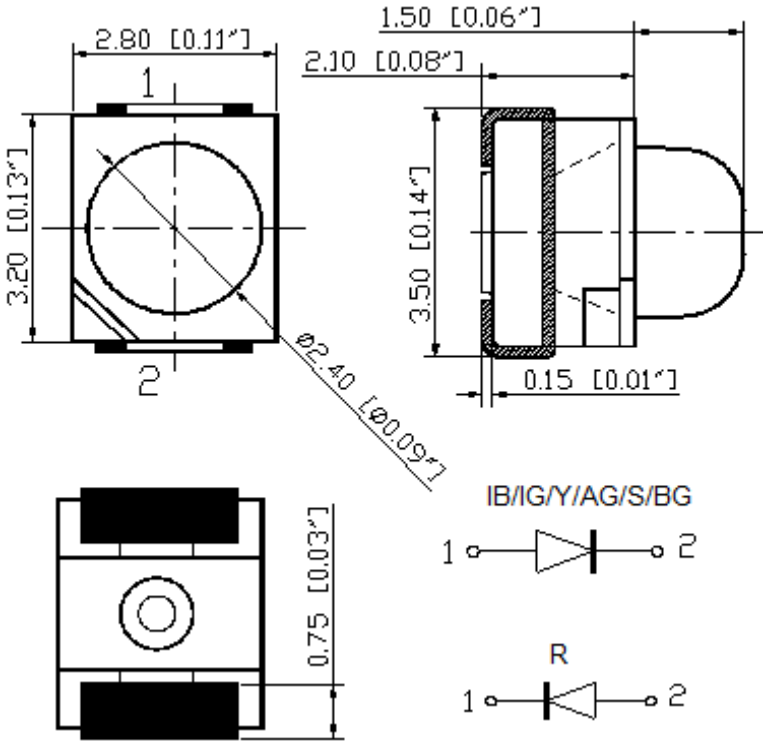
Application:

- Status indication
- Industrial equipment backlighting
- Architecture lighting

Certification & Compliance:

- TS16949
- ISO9001
- RoHS Compliant

Dimension:



Units: mm / tolerance = +/-0.2mm

Electrical / Optical Characteristic (Ta=25 °C)

Product	Color	I_F (mA)	V_F (V)		λ_D (nm)			I_V (mcd)	
			Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.
QBLP670D-R-2693	Red	20	2.0	2.5	620	625	630	2000	3500

Absolute Maximum Rating

Material	P_d (mW)	I_F (mA)	I_{FP} (mA)*	V_R (V)	T_{OP} (°C)	T_{ST} (°C)
AlInGaP	75	30	125	5	-40 ~ +80	-40 ~ +85
InGaN	111	30	125	5	-40 ~+80	-40 ~+85

*Duty 1/8 @ 1KHz

Forward Voltage V_F for AlInGaP @ I_F=20mA

Bin	Min.	Max.	Unit
☐	1.7	2.5	V

Luminous Intensity I_V @ I_F=20mA

Bin	Min.	Max.	Unit
W	2000	2500	mcd
X	2500	3200	
Y	3200	4000	
Z	4000	5200	
a	5200	6800	

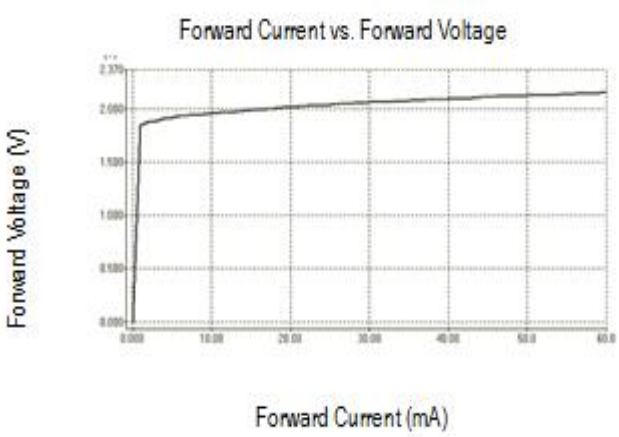
Dominant Wavelength λ_D for Red @ I_F=20mA

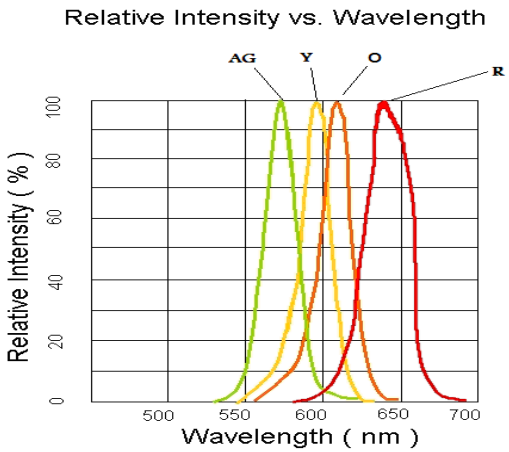
Bin	Min.	Max.	Unit
t	620	625	nm
u	625	630	

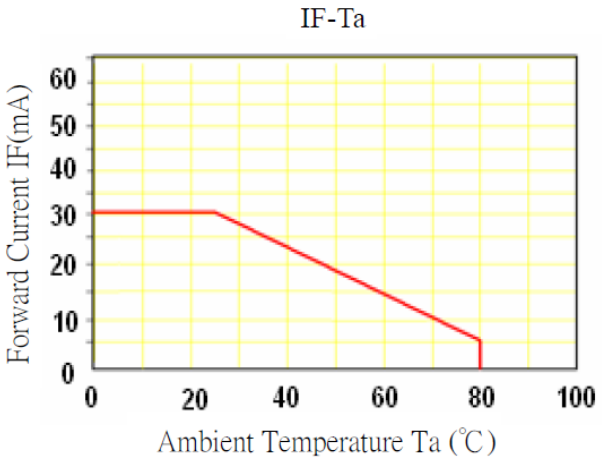
Note:
Tolerance of measurement of forward voltage: ±0.1V
Tolerance of measurement of dominant wavelength: ±1nm
Tolerance of measurement of luminous intensity: ±15%
All parameters are measured by QT-Brightek equipment

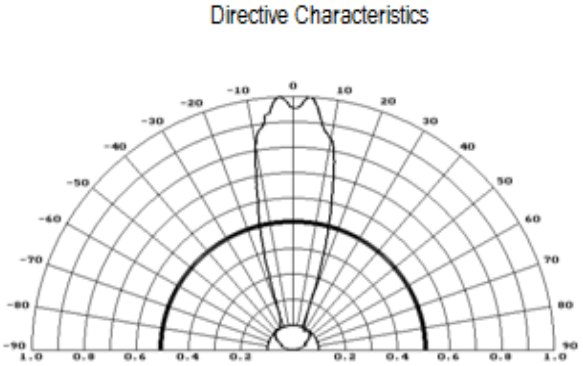
Characteristic Curves

AlInGaP

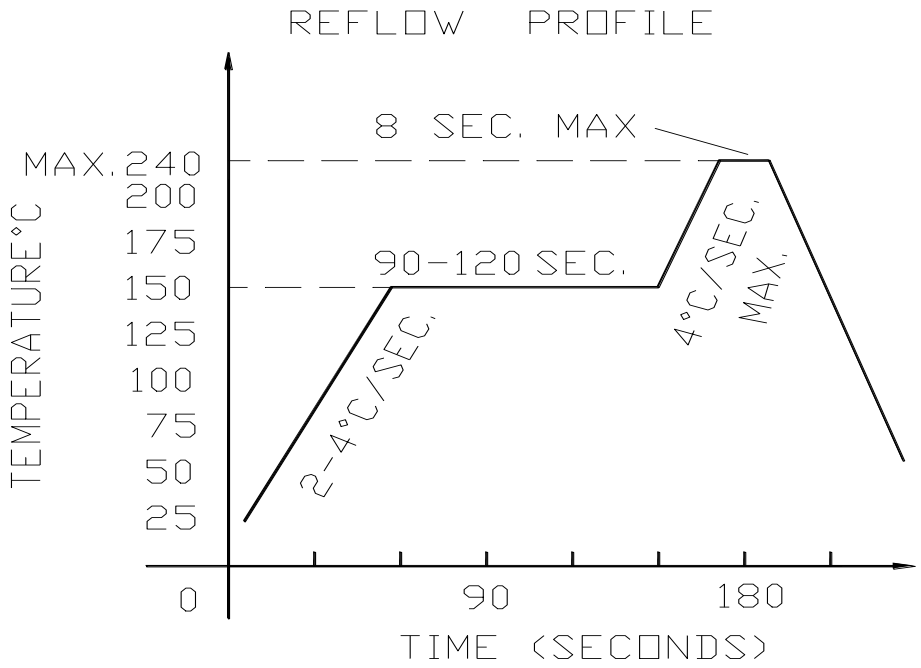




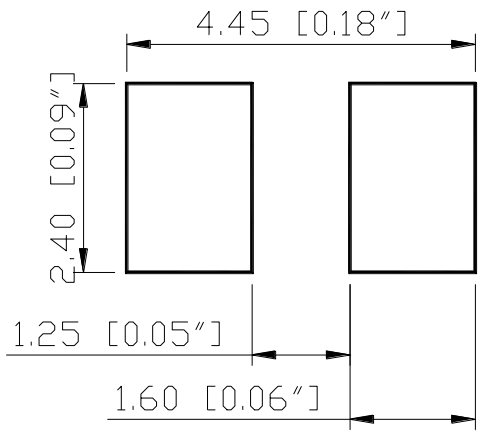




Solder Profile & Footprint



Recommended Pad Layout



Units: mm Tolerance: ± 0.2mm

Recommended Handling Precautions

1. It is recommended to store the products in sealed and anti-static bags with desiccant inside at the following condition:
   - Humidity: <60% RH
   - Temperature: 5°C~30°C

2. Shelf life in sealed bag: 12 month at 5°C~30°C and ＜60% R.H

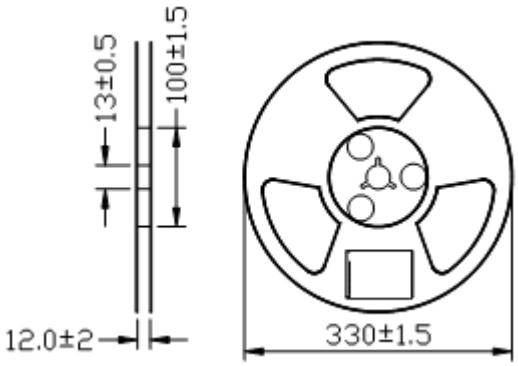
3. After the package is opened:
   3.1 The products should be used within a week (168 hours)
   3.2 Or product should be stored at ≦ 20% RH and (5°C~30°C) with zip-lock sealed bag
   3.3 It is recommended to bake before soldering when the package is unsealed after 72hrs;
   3.3.1 Baking condition (Tape and Reel Type): 60±3°C (24~36 hrs) and < 5% RH
   3.4 Products require baking before soldering/mounting if **3.1** or **3.2** is not met. Baking condition refers to **3.3.1**

4. If the product is not used within 3 months since manufacturing date, it is recommended to bake for 24 hrs @ 60°C before use.

5. If the product is not used after 3 months since manufacturing date, it is recommended to bake for 36~48 hrs @ 60°C before use.

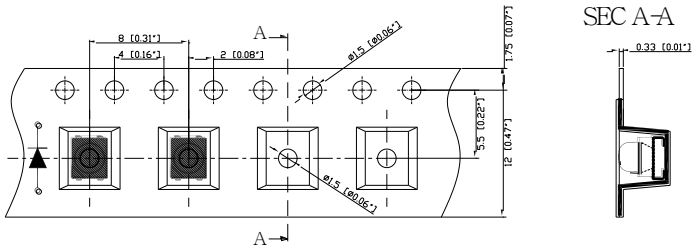
Packing

Reel Dimension:



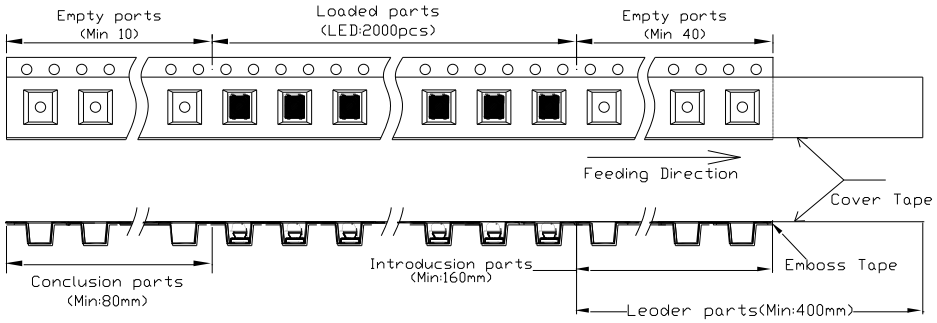
Unit: mm

Tape Dimension:

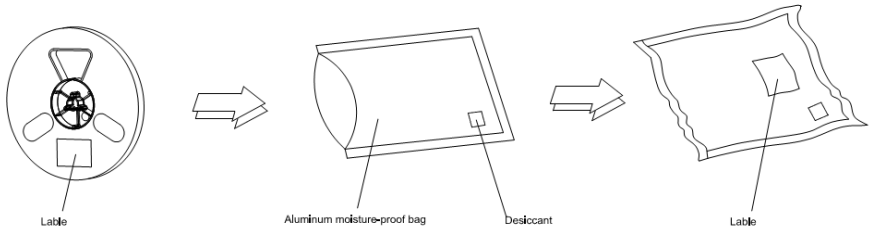


Unit: mm

Arrangement of Tape:



Packaging Specifications:



Labeling

Ordering Information

Part #	Orderable Part #	Spec Range	Quantity per Reel
QBLP670D-R-2693	QBLP670D-R-2693	Iv=3500mcd typ. @ I_F=20mA / λ_D=620nm to 630nm	2,000 units

Revision History

Description:	Revision #	Revision Date
New Release of QBLP670D-R-2693	V1.0	10/20/2014

Disclaimer

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1. Life support devices or systems are devices or systems which, (a) are intended for surgical implant into the body, or (b) support or sustain life, and (c) whose failure to perform when properly used in accordance with instructions for use provided in the labeling, can be reasonably expected to result in a significant injury of the user.

2. A critical component in any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.